

POLYCHAETES OF THE FAMILIES GLYCERIDAE, GONIADIDAE AND NEREIDIDAE FROM THE NORTH ATLANTIC AROUND THE FAROES, TOGETHER WITH A DESCRIPTION OF A NEW SPECIES OF *RULLIERINEREIS* (NEREIDIDAE)

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SARSIA



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Fourteen species of polychaetes from the families Glyceridae, Goniadidae and Nereidae were found in the BIOFAR material from the area around the Faroes at 20-2420 m depth. One species new to science, *Rullierinereis faroensis*, was obtained by the R/V *Dana*, south of the Faroes at 100 m depth. Six of the other species are new to the Faroes. The existence of two different water masses, Arctic water coming from north and east and Atlantic water coming from south, partly explain the distribution of the species.

Contribution from the BIOFAR project.

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KEYWORDS: Polychaetes; Faroes; deep water.

INTRODUCTION

The present paper is based mainly on material obtained by the BIOFAR programme during 1987-1990 and treats species belonging to the three polychaete families Glyceridae, Goniadidae and Nereididae. In addition material collected by R/V *Dana* in 1961, south of the Faroe Islands, has been included. The material comprised 15 species from the three families, one new to science, only 8 of which were previously known from the Faroes (DITLEVSEN 1929). DITLEVSEN (1929) also found two species which were not present in the BIOFAR material: *Hediste diversicolor* (O.F. MÜLLER, 1776) (as *Nereis diversicolor*) and *Platynereis dumerilii* (AUDOUIN & MILNE EDWARDS, 1834) (as *Nereis dumerilii*). The differences between earlier collections and the BIOFAR material are surely due to the much deeper samples taken by BIOFAR and also to the finer mesh size: ½ mm versus 1 mm in earlier samples. In the 1929 publication of Ditlevsen, only material from littoral and sublittoral zones was treated, whereas the BIOFAR material was sampled at depths of 20-2420 m, mostly between 100 and 1000 m.

Around the Faroes two different water masses meet (WESTERBERG 1990). This gives interesting information on the reasons for the distribution of the different polychaete species. North and east of the Faroes is the Arc-

tic water, with temperatures below 0 °C at the bottom. This water mass comes from the Norwegian Basin and goes through the Faroe-Shetland Channel into the Faroe Bank Channel. The other water mass is the Atlantic water, which comes from south and southwest and gives high temperatures, 8-9 °C, on the banks southwest of the Faroes (Faroe Bank, Bill Bailey's Bank and Lousy Bank) and on an area between 100 and 200 m southwest of the Faroe Islands. The remaining area around and close to the Faroe Islands, with depths between 300 m and the littoral zone, has bottom temperatures between 6 and 8 °C.

MATERIAL AND METHODS

A description of sampling methods, treatment of material and a station list are given in NØRREVANG & al. (1994). The material given to me was kept in tubes of 80 % ethyl alcohol after initial fixation in 4 % formaldehyde solution. It was studied using a Wild M8 stereo microscope with magnification 6x-50x (zoom); slide preparations were examined using a Kyowa compound microscope (10x, 20x, 40x and 100x objectives and 10x oculars). Preparations for permanent slides were dehydrated in absolute alcohol and mounted in Euparal. Drawings were made by the staff artist at the Zoological Museum, University

of Copenhagen (ZMUC) using a drawing tube. Scales for drawings of parapodia were made by placing the permanent slide with the figured parapodium on a stage micrometer (1/100 mm) and measuring the distance between two fixed points on the drawing. Specimens in alcohol were measured by placing them over a ruler and measuring to the nearest 1 mm. Most of the examined material is kept in the collections of the Natural History Museum, Torshavn (NHMT); a few specimens have been retained for the Zoological Museum, University of Copenhagen (ZMUC). These have a catalogue number, the material kept in NHMT has not.

SYSTEMATIC PART

Family Glyceridae GRUBE, 1850

Genus *Glycera* SAVIGNY, 1818

Glycera alba (O.F. MÜLLER, 1776)

Glycera alba – FAUVEL 1923:385, fig. 150 i-m; DITLEVSEN 1929:23; WESENBERG-LUND 1951:50, 176 (chart 25); KIRKEGAARD 1992:161-163, fig. 75.

Material. BIOFAR Stn 366, 1 spec.

Remarks. *Glycera alba* can be recognized by its finger-shaped gills arising from the upper edge of the notopodia.

This species is fairly rare in the Faroes, since it is a more southern species. In the present investigation it was only recorded with one specimen from one locality in the northeastern part of the Faroes. DITLEVSEN (1929) has one record from Østerø and one from the locality 'Faroes' in the ZMUC. It is known from several places in Iceland, both from western, southern, and northern Iceland (WESENBERG-LUND 1951), but it has never been recorded from Greenland or other parts of the Arctic.

Distribution. Iceland, Faroes, Norway (north to Andøya, 69°N), Denmark, England, France, west coast of Africa to South Africa, Mediterranean, Red Sea, Indian Ocean, Japan. 1-400 m.

Glycera capitata ØRSTED, 1843 (Fig. 1)

Glycera capitata – DITLEVSEN 1929:24; WESENBERG-LUND 1951:49, 175 (chart 24); O'CONNOR 1987:183-184, fig. 13; KIRKEGAARD 1992:162, fig. 76.

Material. BIOFAR Stn 256, 2 spec. Stn 292, 1. Stn 335, 1. Stn 391, 1. Stn 394, 1. Stn 396, 1. Stn 481, 11 (ZMUC-POL:00334). Stn 492, 1 (ZMUC-POL:00335). Stn 493, 1. Stn 698, 6 (ZMUC-POL:00336). Stn 718, 1. Stn 719, 1. Stn 727, 1 (ZMUC-POL:00337). Stn 728, 3. Stn 742, 1. Stn 750, 2. Stn 779, 1. Stn 9018, 2.

Remarks. This species is fairly easy to recognize as it has only one postsetal lobe on the parapodia and two presetal ones. Moreover, it has only two rings on the midbody segments. However, it has often been confused with *Glycera lapidum*, which has three rings on all segments and dorsal presetal lobes that are much shorter than the ventral ones.

G. capitata is recorded from 18 stations around the Faroes from 255-997 m depth, with temperatures from 0 to 7.9 °C. DITLEVSEN (1929) found it only at Trangisvaag on Suderø, southwest of the Faroes, and on the Faroe Bank (58-120 m).

Distribution. Arctic, North Atlantic (Iceland, Faroes, Norway (along the coast), Denmark to Portugal, Azores, Madeira, Davis Strait to Rhode Island), Mediterranean, Pacific (Japan, Alaska to Mexico), South Atlantic (West Africa), Antarctic. 1-3500 m.

Glycera lapidum QUATREFAGES, 1866 (Fig. 2)

Glycera lapidum – FAUVEL 1923:386-387, fig. 151 f-m; WESENBERG-LUND 1951:50, 175 (chart 24); KIRKEGAARD 1992:166-168, fig. 78; 1995:25.

Material. BIOFAR Stn 7, 1 spec. Stn 19, 35. Stn 27, 18. Stn 29, 5. Stn 32, 1. Stn 41, 3. Stn 51, 4. Stn 56, 19. Stn 61, 1. Stn 63, 2. Stn 64, 2. Stn 65, 3. Stn 70, 1. Stn 73, 33. Stn 77, 11. Stn 80, 4. Stn 82, 69. Stn 86, 2. Stn 98, 28. Stn 105, 2. Stn 110, 2. Stn 122, 1. Stn 124, 6. Stn 156, 1. Stn 158, 2. Stn 165, 7. Stn 172, 1. Stn 188, 1. Stn 189, 1. Stn 193, 2. Stn 203, 2. Stn 227, 1. Stn 236, 2. Stn 240, 2. Stn 244, 3. Stn 246, 2. Stn 251, 2. Stn 252, 1. Stn 261, 1. Stn 263, 6. Stn 265, 1. Stn 267, 3. Stn 269, 4. Stn 271, 31. Stn 282, 2. Stn 290, 1. Stn 294, 1. Stn 295, 2. Stn 334, 1. Stn 335, 7. Stn 341, 16. Stn 344, 2. Stn 348, 1. Stn 349, 2. Stn 355, 2. Stn 357, 2. Stn 359, 3. Stn 361, 2. Stn 363, 3. Stn 375, 5. Stn 378, 3. Stn 381, 15. Stn 382, 3. Stn 383, 2. Stn 385, 1. Stn 386, 1. Stn 388, 2. Stn 391, 1. Stn 394, 1. Stn 396, 1. Stn 402, 2. Stn 411, 13. Stn 415, 2. Stn 421, 8. Stn 424, 22. Stn 425, 15 (ZMUC-POL:00338). Stn 451, 2. Stn 456, 1. Stn 469, 4. Stn 476, 1. Stn 478, 2. Stn 479, 1. Stn 481, 4. Stn 483, 14. Stn 489, 1. Stn 490, 3 (ZMUC-POL:00339). Stn 492, 2. Stn 493, 9. Stn 495, 1. Stn 499, 4 (ZMUC-POL:00340). Stn 500, 2. Stn 501, 5. Stn 502, 1. Stn 504, 2. Stn 506, 1. Stn 514, 2. Stn 515, 4. Stn 516, 3. Stn 517, 7. Stn 522, 1. Stn 525, 4. Stn 528, 1. Stn 544, 1. Stn 545, 4. Stn 546, 5. Stn 547, 2. Stn 550, 8. Stn 559, 1. Stn 583, 1. Stn 585, 1. Stn 597, 5. Stn 600, 1. Stn 605, 5. Stn 607, 1. Stn 610, 1. Stn 680, 2 (ZMUC-POL:00341). Stn 689, 6. Stn 690, 4. Stn 692, 2. Stn 693, 1. Stn 705, 6. Stn 716, 2. Stn 718, 1. Stn 720, 3. Stn 722, 2. Stn 726, 1. Stn 728, 1. Stn 729, 4 (ZMUC-POL:00342). Stn 730, 3. Stn 731, 1. Stn 736, 4 (ZMUC-POL:00343). Stn 737, 3. Stn 738, 11. Stn 739, 1 (ZMUC-POL:00344). Stn 744, 3 (ZMUC-POL:00345). Stn 745, 1 (ZMUC-POL:00346). Stn 747, 5. Stn 749, 3. Stn 756, 1. Stn 759, 3. Stn 760, 2. Stn 763, 1. Stn 764, 1. Stn 765, 1. Stn 766, 1. Stn 767, 4. Stn 775, 6. Stn 777, 3. Stn 778, 4. Stn 779, 1. Stn 781, 4. Stn 9014, 1. Stn 9018, 1.

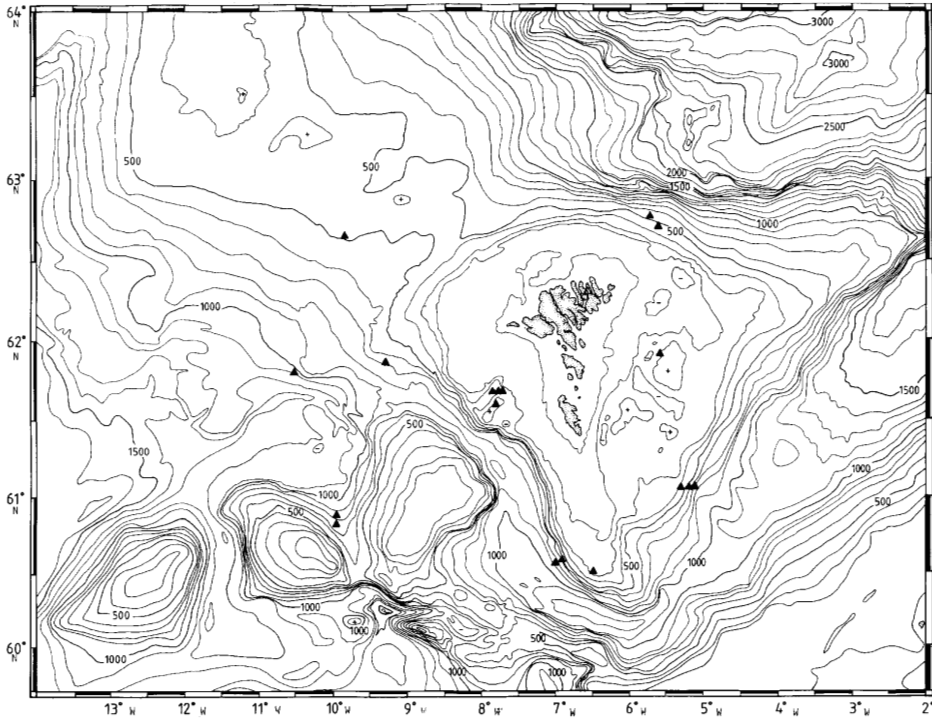


Fig. 1. *Glycera capitata* ØRSTED, 1843. Distribution in the Faroes 253-997 m.

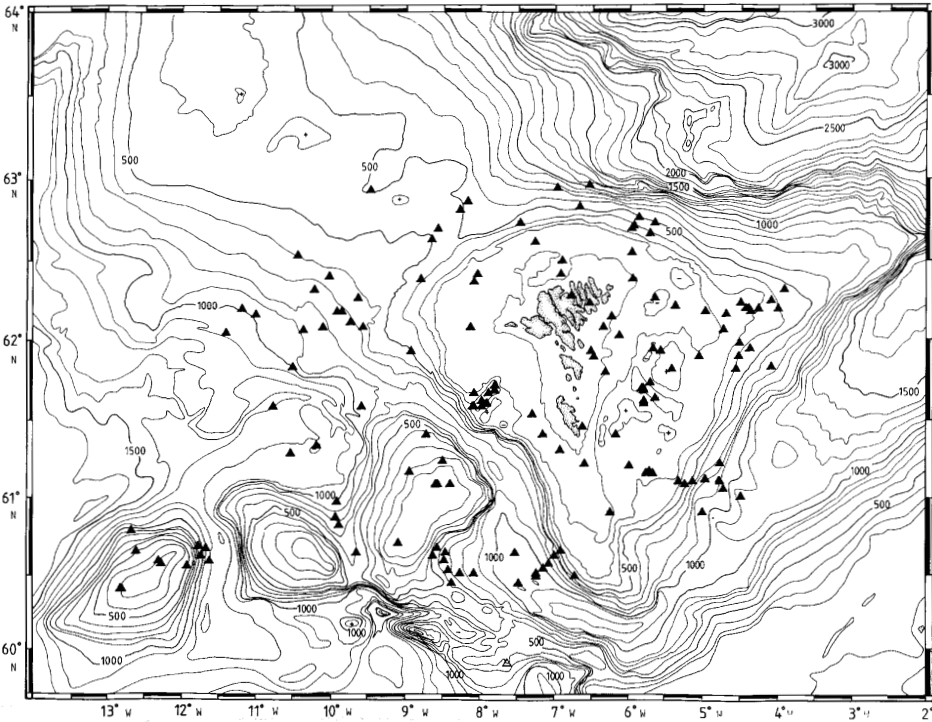


Fig. 2. *Glycera lapidum* QUATREFAGES, 1866. Distribution in the Faroes, 32-1319 m.

Remarks. As mentioned under *Glycera capitata*, *G. lapidum* has rounded postsetal lobes on the parapodia and two finger-shaped presetal lobes, of which the dorsal is much smaller than the ventral one. Moreover it has always three rings on all the segments. O'CONNOR (1987) describes four varieties of *G. lapidum* based on different shape of the aileron and different length of the *parapodial* presetal lobes. FAUVEL (1923, p. 387) suggests the species to be a variety of *G. capitata* and many polychaete specialists follow him, so the distribution of *G. lapidum* is uncertain. However, I regard that O'CONNOR'S investigation (1987) confirms the position of *G. lapidum* as a separate species.

This species has never been recorded from the Faroes before, but has probably been confused with *G. capitata*. It has been recorded from several places in Iceland by WESENBERG-LUND (1951), mostly from shallow water, and also from Norway, Denmark and the British Islands.

Glycera lapidum was present at 148 BIOFAR stations all over the investigated areas, from low water close to the islands to 1300 m in the deeper part of the surroundings. Fig. 2 shows it to be common all around the Faroes in both cold and warm waters.

Distribution. North Atlantic from Iceland, Norway north to Sørøya, 70°50'N, to the Azores and northeastern North America, West Africa, Indian Ocean, Pacific. 1-4400 m.

Glycera rouxii AUDOUIN & MILNE EDWARDS, 1833

Glycera rouxii – FAUVEL 1923:389, fig. 153 a-c; WESENBERG-LUND 1951:50-51, 176 (chart 25); KIRKEGAARD 1992:168-169, fig. 79.

Glycera goesi – DITLEVSEN 1929:24.

Material. BIOFAR Stn 63, 1 spec. Stn 241, 1 spec. (ZMUC-POL:00347). Stn 392, 1 spec. (ZMUC-POL:00348). Stn 393, 2 spec. (ZMUC-POL:00349). Stn 395, 1 spec. Stn 542, 3 spec.

Remarks. *Glycera rouxii* can be recognized by its finger-shaped, retractile branchiae, which are placed at anterior side of the parapodia. Both presetal lobes are triangular; the dorsal postsetal lobe is also triangular with a pointed tip, the ventral one is rounded.

This is mostly a Lusitanian species, so it is interesting that it was recorded from a place southwest of the Faroes, at six stations close together, most at about 350 m (200-355 m) and with bottom temperatures about 8-9 °C (7.9-8.9 °C).

The species was previously known from the Faroes from one specimen from Trangisvaag (Suderø), at 66 m. From Iceland it was reported by EINARSSON (1941) from 110-140 m and by WESENBERG-LUND (1951) from seven

different stations in Faxafloi from low water. It has also been recorded from the west coast of Norway (north to Lofoten, 68°30'N), but not from Greenland. In Denmark it is the most common glycerid, both in the North Sea and all inner Danish waters.

Distribution. Eastern Atlantic from Norway to South Africa, Indian Ocean, Pacific. 10-4380 m.

Glycera tessellata GRUBE, 1863

Glycera tessellata – FAUVEL 1923:387, fig. 152 a-c; KIRKEGAARD 1992:169-170, fig. 80; 1995:27.

Material. BIOFAR Stn 516, 6-7 °C, 1 spec. (ZMUC-POL:00350).

Remarks. *Glycera tessellata* is characterized by the lack of branchiae, by having 2 triangular, pointed presetal lobes and 2 rounded postsetal lobes, and by a characteristic aileron (jaw support) (KIRKEGAARD 1992, fig. 80).

It is remarkable to find this species so far north. It is a typical warm water species with its nearest record in the North Sea. It has never been recorded from Greenland, Iceland, the Faroes or western Norway. The present specimen was taken in the warm water coming from southwest.

Distribution. Atlantic (Faroes to West Africa, North Carolina), Indian Ocean, Pacific. 20-1500 m.

Family Goniadidae KINBERG, 1866

Genus *Glycinde* MÜLLER, 1858

Glycinde nordmanni (MALMGREN, 1865)

Eone nordmanni – FAUVEL 1923:394-395, fig. 155 h-n. *Glycinde nordmanni* – KIRKEGAARD 1992:172, fig. 81.

Material. BIOFAR Stn 73, 2 spec. Stn 78, 1 spec. Stn 483, 2 spec. Stn 542, 5 spec. (ZMUC-POL:00351).

Remarks. *Glycinde nordmanni* is the only species belonging to the genus *Glycinde* in the North Atlantic area. It can be recognized by the lack of pharyngeal chevrons and by having only spinigers in the neuropodia.

Around the Faroes it was only recorded from the area southwest of the islands, from 150 to 405 m in fairly warm waters (4-8 °C). It has never been recorded from Iceland or Greenland. This is in accordance with its common distribution along the European coast from the Mediterranean to the North Sea and along the coast of Norway. In Denmark it is known from the Skagerrak and the Kattegat.

Distribution. North Atlantic from the Mediterranean to Norway (Lofoten) and south of the Faroes 0.5-405 m.

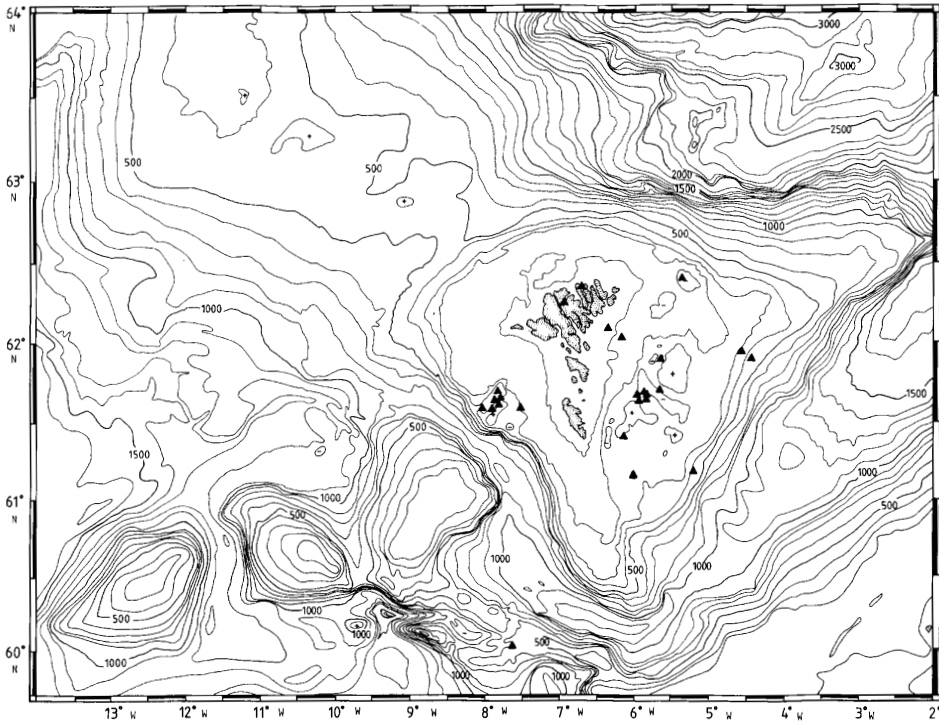


Fig. 3. *Goniada maculata* ØRSTED, 1843. Distribution in the Faroes, 32-655 m.

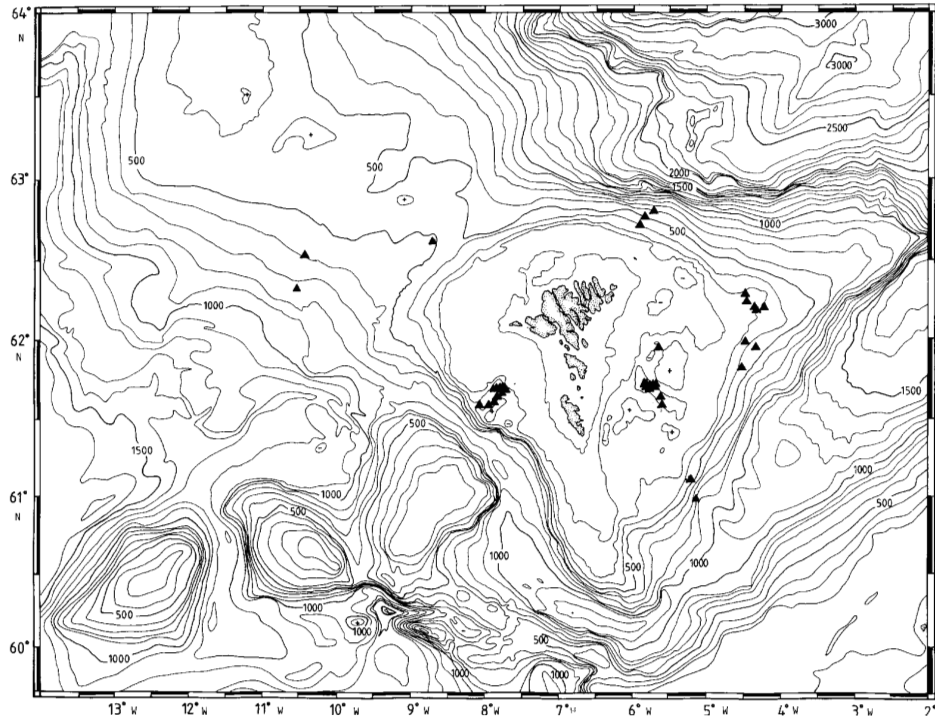


Fig. 4. *Goniada norvegica* ØRSTED, 1844. Distribution in the Faroes, 252-702 m.

Genus *Goniada* AUDOUIN & MILNE-EDWARDS, 1843*Goniada maculata* ØRSTED, 1843 (Fig. 3)

Goniada maculata – FAUVEL 1923:392-393, fig. 154 a-g; DITLEVSEN 1929:24; EINARSSON 1941:31; WESEBERG-LUND 1951:51-52, 176 (chart 25); KIRKEGAARD 1992:174-176, fig. 82; 1995:30.

Material. BIOFAR Stn 51, 1 spec. (ZMUC-POL:00352). Stn 61, 1. Stn 103, 17 (ZMUC-POL:00353). Stn 208, 1. Stn 209, 1. Stn 233, 1. Stn 240, 1. Stn 241, 4. Stn 244, 4. Stn 248, 1 (ZMUC-POL:00354). Stn 282, 1. Stn 295, 1. Stn 356, 1 (ZMUC-POL:00354). Stn 359, 3. Stn 366, 1. Stn 378, 1. Stn 383, 1 (ZMUC-POL:00355). Stn 386, 1. Stn 388, 2. Stn 391, 1. Stn 542, 2. Stn 600, 1 (ZMUC-POL:00356). Stn 610, 3. Stn 779, 1.

Remarks. *Goniada maculata* can be recognized by its two presetal lobes except on the first 38-48 anterior segments, where there is only one, and by having 7-11 chevrons on each side of the pharynx.

In the material from BIOFAR it was recorded both close to the islands and on the large shelf plain around the islands, at depths of about 200-300 meters (see Fig. 3). It was also recorded from a single station with a depth of 655 m. At these areas the temperatures were 6-8 °C. It was not recorded from stations in the Arctic water.

DITLEVSEN (1929) states that this species is one of the most common polychaete species in the Faroes in the shallow waters in the fjords, not surpassing 100 m depth. In the present investigation it was also found down to 655 m. EINARSSON (1941) regards this species as one of the most common polychaetes in the Faxaflói (Iceland).

Goniada maculata has also been recorded from West Greenland, but not from East Greenland, which fits well with its distribution at the Faroes, where it has not been taken in the Arctic water.

Distribution. Atlantic (Norway (Oslofjord to the Russian border) to South Africa, Gulf of St. Lawrence to North Carolina), Iranian Gulf, North Pacific. 1-2500 m.

Goniada norvegica ØRSTED, 1844 (Fig. 4)

Goniada norvegica – FAUVEL 1923:393-394, fig. 155 a-g; DITLEVSEN 1929:24-25; WESEBERG-LUND 1951:51 (chart 25); KIRKEGAARD 1992:176, fig. 83.

Material. BIOFAR Stn 31, 2 spec. (ZMUC-POL:00357). Stn 32, 1. Stn 33, 1. Stn 63, 2. Stn 65, 1. Stn 158, 5. Stn 207, 1. Stn 208, 1. Stn 223, 1. Stn 236, 1. Stn 237, 1. Stn 238, 1. Stn 240, 1. Stn 251, 1. Stn 253, 1 (ZMUC-POL:00358). Stn 281, 1. Stn 344, 3. Stn 359, 2. Stn 382, 1 (ZMUC-POL:00359). Stn 385, 2. Stn 394, 1. Stn 396, 1. Stn 419, 1. Stn 420, 1 (ZMUC-POL:00360). Stn 481, 1 (ZMUC-POL:00361). Stn 621, 1. Stn 717, 1. Stn 747, 3 (ZMUC-POL:00362). Stn 749, 2. Stn 750, 1 (ZMUC-POL:00363). Stn 760, 2. Stn 762, 5. Stn 763, 4. Stn 765, 1. Stn 767, 1. Stn 775, 1. Stn 777, 2.

Remarks. All segments have 2 presetal lobes on the parapodia, 15-20 V-shaped chevrons on each side of the pharynx.

The distribution of *Goniada norvegica* in the deep water around the Faroes (Fig. 4) appears to be like that of *G. maculata*, but it was also recorded from the area northwest of the Faroes with temperatures of 2-4 °C and in the deep water north of the islands with temperatures of 0-0.5 °C. It was recorded from many stations around 300-400 m and down to 700 m (Fig. 4). This is interesting because the species has never been recorded from low water in the fjords. DITLEVSEN (1929) has only one record of this species at 150 m southwest of Suderø. Off Iceland it is distributed both in warmer water along the south coast as well as in the Arctic water along the east coast.

Distribution. Atlantic (Norway (to Finnmark, 71°N), Faroes, Iceland, west coast of Europe, West Africa (Zaire), Massachusetts to Long Island Sound and West Indies). In Denmark it is only found in the North Sea and in Skagerrak. 50-1000 m.

Genus *Goniadella* HARTMAN, 1950*Goniadella bobretzkii* (ANNENKOVA, 1929)

Goniada bobretzkii – ANNENKOVA, 1929:495-497.

Goniadella bobretzkii – ZIEGELMEIER 1953:255-259, fig. 1; HARTMANN-SCHRÖDER & STRIPP 1968:15; HARTMANN-SCHRÖDER 1971:242, fig. 81; KIRKEGAARD 1992:179.

Material. BIOFAR Stn 755, 1 spec. (ZMUC-POL:00365). Stn 756, 1. (ZMUC-POL: 00366). Stn 759, 1. Stn 760, 1. Stn 766, 1.

Remarks. *Goniadella bobretzkii* has both spinigers and falcigers in the neuropodia and it has also many chevrons on each side of the pharynx.

The species was only obtained from 5 stations northeast of the Faroes, at depths of 277-444 m. These stations are situated close to the Arctic water, i.e., the temperature at the bottom varies between 2.6 and 6.5 °C.

The species is only known from a few places in the world. It has never been recorded before from the Faroes, nor from Iceland or Greenland. It was described from the Black Sea (ANNENKOVA 1929) and reported much later from the southern part of the North Sea (ZIEGELMEIER 1953). It surely must have a wider distribution in the North Atlantic, but may have been overlooked.

Distribution. Black Sea, North Sea, Faroes, Norwegian coast: Skagerrak, North Sea, and one record from Middle Nordland, ca 67°N. 5-444 m.

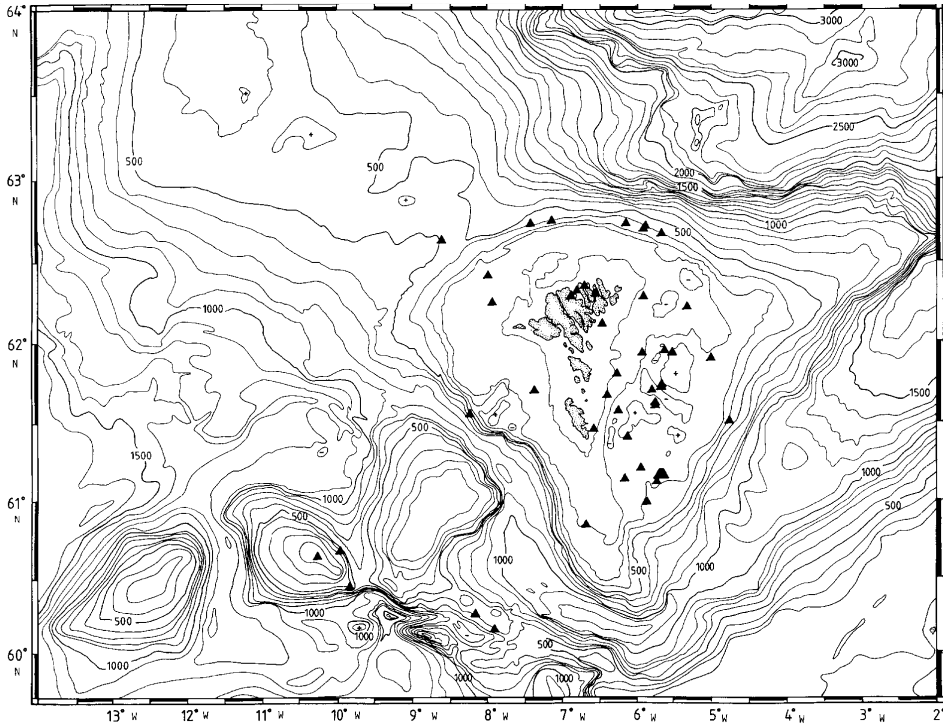


Fig. 5. *Nereis pelagica* LINNAEUS, 1758. Distribution in the Faroes, 50-656 m.

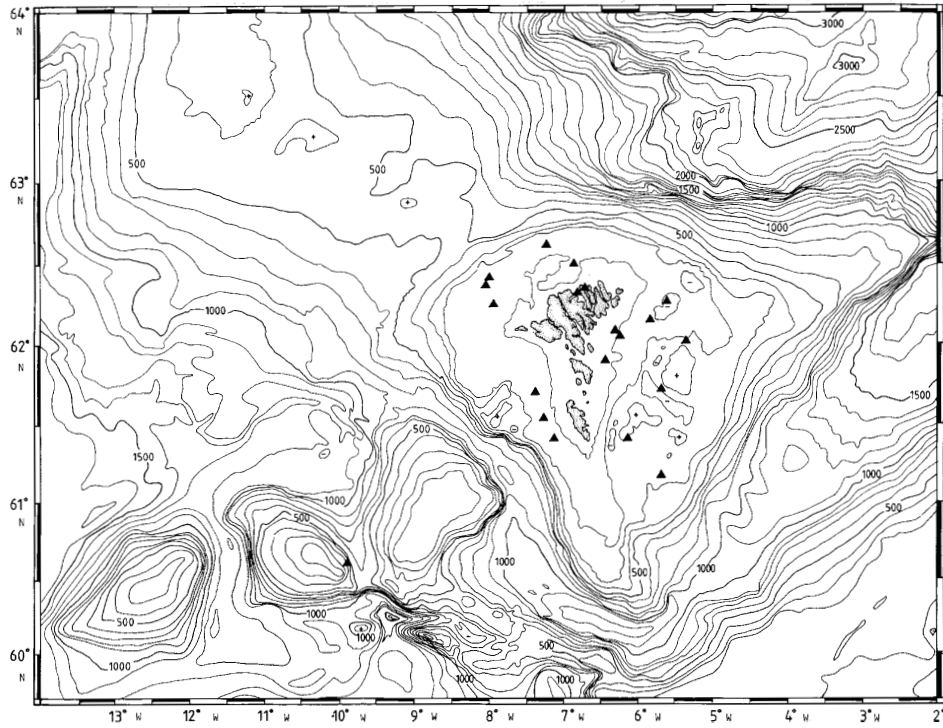


Fig. 6. *Nereis zonata* MALMGREN, 1867. Distribution in the Faroes, 66-245 m.

Family Nereididae JOHNSTON, 1845

Genus *Eunereis* MALMGREN, 1867

Eunereis elitoralis (ELIASON, 1962)

Nereis elitoralis – ELIASON, 1962:250-252, fig. 13.

Nereis (Eunereis) elitoralis – HARTMANN-SCHRÖDER 1971:207.

Eunereis elitoralis – KIRKEGAARD 1992:293-294, fig. 145.

Material. BIOFAR Stn 749, 62°47'N, 5°51'W, 497 m, 1 spec. (ZMUC-POL:00367).

Remarks. The specimen is complete, 20 mm long, 1 mm wide with 99 segments. Paragnaths are only present on zones IV, VI and VII-VIII; the eyes are very small and the dorsal cirri are longer than the dorsal parapodial lobes. The present specimen has 9 paragnaths on zone IV (ELIASON: 5-6), 1 on zone VI (2-3) and 2 on zone VII-VIII (4-6). However, ELIASON only got 3 specimens from 3 stations in the Skagerrak, so the variation in the number of paragnaths may be greater than his material indicates. All other characters fit well with ELIASON'S description and figures.

The present specimen was obtained from a station northeast of the Faroes in the cold Arctic waters, with temperature of 2 °C.

Distribution. Skagerrak, Faroes, Norwegian coast north to Sogn, 61°N. 126-497 m.

Eunereis longissima (JOHNSTON, 1840)

Nereis (Eunereis) longissima – FAUVEL 1923:351, fig. 138 a-d.

Nereis longissima – DITLEVSEN 1929:19.

Eunereis longissima – KIRKEGAARD 1992:294-295, fig. 146.

Material. BIOFAR Stn 368, 1 spec. (ZMUC-POL:00368). Stn 372, 1.

Remarks. This species has paragnaths only on zone VI, 1-8 in a small group. It has 1-2 homomorph falcigers in the notopodia from setiger 65-70. These falcigers have a rounded top with small teeth below the top.

Eunereis longissima is a rare species around the Faroes, previously only recorded once in Kollefjord (Strømø) and once in Trangisvaag (Suderø), both places with few specimens. The present two specimens are from Strømø and Østerø. The species has never been recorded from Iceland or Greenland, so it appears to have a more southern distribution in the Northeast Atlantic. In Danish waters it is distributed from the North Sea to the northern part of Øresund.

Distribution. Northeast Atlantic from the coast of Norway to Bergen, 60°N, the Faroes and along the west coast of Europe to the Mediterranean. 10-2000 m.

Genus *Nereis* LINNAEUS, 1758

Nereis pelagica LINNAEUS, 1758 (Fig. 5)

Nereis pelagica – FAUVEL 1923:336 fig. 130 a-d; DITLEVSEN 1929:17; WESENBURG-LUND 1951:39 (chart 19); KIRKEGAARD 1992:311, fig. 153.

Material. BIOFAR Stn 27, 1 spec. (ZMUC-POL:00369). Stn 33, 1. Stn 43, 9 (ZMUC-POL:00370). Stn 44, 1 Stn 49, 1. Stn 51, 2. Stn 100, 2. Stn 111, 1. Stn 148, 1. Stn 156, 2. Stn 163, 1. Stn 278, 1. Stn 282, 3. Stn 297, 1. Stn 298, 1. Stn 307, 1. Stn 320, 1. Stn 344, 1. Stn 349, 4. Stn 350, 7. Stn 354, 1. Stn 363, 3 (ZMUC-POL:00371). Stn 365, 2. Stn 366, 1. Stn 368, 5 (ZMUC-POL:00372). Stn 370, 3. Stn 371, 1 (ZMUC-POL:00373). Stn 374, 1. Stn 375, 8. Stn 377, 1. Stn 378, 1. Stn 389, 1. Stn 451, 3 (ZMUC-POL:00374). Stn 453, 1. Stn 469, 5. Stn 474, 2. Stn 476, 1. Stn 540, 1. Stn 543, 2 (ZMUC-POL:00375). Stn 549, 2. Stn 550, 1. Stn 558, 3. Stn 559, 5. Stn 589, 1. Stn 601, 1. Stn 605, 4 (ZMUC-POL:00376). Stn 678, 1 (ZMUC-POL:00377). Stn 724, 1. Stn 747, 1. Stn 756, 2. Stn 777, 1 (ZMUC-POL:00378) Stn 779, 6 (ZMUC-POL:00379). Stn 781, 6 (ZMUC-POL:00380).

Remarks. *Nereis pelagica* can mainly be recognized by its paragnaths, which are present on all zones of the proboscis except area V. There are 4-5 large paragnaths forming a cross on area VI, and 1-2 rows of large paragnaths and several small ones behind them on VII-VIII. Furthermore there are several homomorph falcigers in the posterior notopodia. *N. pelagica* may be distinguished from *N. zonata*, which is the other *Nereis* species common in the area around the Faroes by the 4 large paragnaths on area VI. *N. zonata* has many small paragnaths on this area. However, small specimens of *N. pelagica* sometimes have more than 4 paragnaths on VI, so a better way to recognize *N. pelagica* is to look at the parapodia, which on the anterior segments are rounded, whereas they are triangular on *N. zonata*.

Nereis pelagica is one of the most common nereids in the North Atlantic and is also recorded all over the area around the Faroes. It was obtained from 54 stations (Fig. 5) with 1-34 specimens per station. It is most common on the Faroes Shelf and at low water in the fjords, but it was also found down to 656 m. It was recorded in the Arctic water at temperatures below zero, but only at few stations. This is in good accordance with its main distribution in the oceans, where it is rare in the Arctic, but known from West Greenland and Iceland, along the coast of Europe and North America and off West Africa.

Distribution. West Greenland, Iceland, Faroes, Norway (entire coast) to Mediterranean, east coast of North America (Hudson Bay to Florida), South Atlantic. North Pacific. 1-1200 m

Nereis zonata MALMGREN, 1867 (Fig. 6)

Nereis zonata – FAUVEL 1923:338-339, fig. 130 g-h; DITLEVSEN 1929:18; WESENBERG-LUND 1951:41 (chart 20); KIRKEGAARD 1992:314-315, fig. 154.

Material. BIOFAR Stn 3, 2 spec. (ZMUC-POL:00381). Stn 7, 1 (ZMUC-POL:00382). Stn 51, 1 Stn 56, 2. Stn 192, 1 (ZMUC-POL:00383). Stn 204, 1 (ZMUC-POL:00384). Stn 313, 1 (ZMUC-POL:00385). Stn 348, 1. Stn 349, 1. Stn 350, 1. Stn 368, 1. Stn 370, 1. Stn 375, 3. Stn 456, 1. Stn 543, 1 (ZMUC-POL:386). Stn 544, 1. Stn 545, 1. Stn 609, 1. Stn 610, 3. Stn 776, 1.

Remarks. *Nereis zonata* may be difficult to distinguish from *N. pelagica*, especially the small, young specimens, so probably it has often been mistaken for this much more common species. The way to distinguish between the two species is given under *N. pelagica*.

Fig. 6 shows the distribution of *N. zonata* from the present investigation. The species is distributed all over the Faroe Shelf on 25 stations, at 66 to 420 m depth, and in some of the fjords. A single record is at Bill Bailey's Bank, W of Faroe Bank. All these stations have bottom temperature between 6 and 10 °C. Before this investigation the species was considered rare in the Faroes. DITLEVSEN (1929) indicates that it was only recorded by WILLEMOES-SUHM (1873) in Nolsøfjord, and he himself had no material of this species. WESENBERG-LUND (1951) has only 4 records from Iceland, one by FAUVEL (1913), one by SÆMUNDSSON (1918) and two herself. However, I feel sure that it is much more widely distributed in the fjords, but has been recorded as *N. pelagica* (see above). It is widely distributed in the Arctic, both at West and East Greenland, Spitsbergen, Hudson Bay and Bering Sea. In Denmark it is rather rare, known only from the North Sea, the Skagerrak and the northern Kattegat. It thus appears to have a more northern distribution than *N. pelagica*.

Distribution. Arctic, Massachusetts, Iceland, Faroes, Norway (probably entire coast), England, Denmark, Bering Sea, Japan. 1-1000 m.

Genus *Rullierinereis* PETTIBONE, 1971

Rullierinereis faroensis sp. nov. (Fig. 7)

Material. Faroe Bank, Dana Stn , 60°59'N, 8°48'W, 100 m, 21 Aug 1961, 1 spec. (ZMUC-POL:00891, holotype).

Description. Holotype 25 mm long, 1 mm wide. Posterior end missing, 60 setigers present. Body cylindrical, tapering posteriorly. Prostomium with two small tentacles in front and two cylindrical, biarticulate palps (Fig. 7A). No eyes, 4 pairs of tentacular cirri of different lengths, longest reaching setiger 7. Setigers 1 and 2 with

finger-shaped dorsal cirri and single notopodial ligule without setae (Fig. 7B). Neuropodia on these setigers like those of following. Middle parapodia with very long, thin dorsal cirri, two notopodial ligules, lower one twice as long as upper one (Fig. 7C). Between these ligules only a few homogomph spinigers. Neuropodia with rounded acicular lobe and triangular lower lobe. Ventral cirri long, finger-shaped, nearly reaching tip of lower lobe. Neuropodia with upper bundle of 4 homogomph spinigers, and a lower bundle of 3 heterogomph falcigers. Posterior setigers with very long and thin dorsal cirri (Fig. 7D). Notopodia on this section with only one homogomph falciger (Fig. 7E). The blade of this is short, oval and without spines. Upper bundle of neurosetae comprised of 5 homogomph spinigers and 4 heterogomph spinigers; lower bundle with heterogomph falcigers with long blades with dentation on inner edge (Fig. 7E). Pharynx without paragnaths and papillae. Two horny jaws. No sexual products present.

Remarks. The only hitherto known species of *Rullierinereis* without eyes is *R. anoculata* CANTONE, 1982. This species also has similar notopodial homogomph falcigers, but differs from *R. faroensis* by the shape of the parapodial lobes. (CANTONE 1982: 104-105, figs 1 and 2). Another similar species is *Rullierinereis tenerifensis* NUÑEZ, 1984, with similar shape of the parapodial lobes. However, this species has eyes and there are small spines on the blades of the homogomph falcigers (NUÑEZ & al. 1984: 17, fig. 2).

Distribution: Northeast Atlantic, south of the Faroes. 100 m.

Genus *Websterinereis* PETTIBONE, 1971

Websterinereis glauca (CLAPARÈDE, 1870) (Fig. 8)

Leptonereis glauca – FAUVEL 1923:333-334, fig. 129 A-D; WESENBERG-LUND 1950:18 (chart 25).

Websterinereis glauca – PETTIBONE 1971:27, figs 14-16; KIRKEGAARD 1992:321-324, fig. 157; 1995:35.

Material. BIOFAR Stn 27, 1 spec. Stn 240, 1. Stn 263, 1. Stn 264, 1. Stn 314, 1. Stn 335, 4. Stn 341, 4. Stn 361, 1. Stn 492, 2 (ZMUC-POL:00388). Stn 494, 1. Stn 495, 1. Stn 515, 2 (ZMUC-POL:00389). Stn 517, 1. Stn 524, 1. Stn 525, 2. Stn 698, 2. Stn 699, 6 (ZMUC-POL:00390). Stn 722, 1. Stn 737, 2. Stn 738, 3. Stn 739, 2. Stn 744, 3 (ZMUC-POL:00391).

Remarks. *Websterinereis* belongs to a group of nereids with no paragnaths on the pharynx, but which may have papillae instead. *Websterinereis* is characterized by having long dorsal cirri, only homogomph spinigers in the notopodia and some neuropodial heterogomph falcigers.

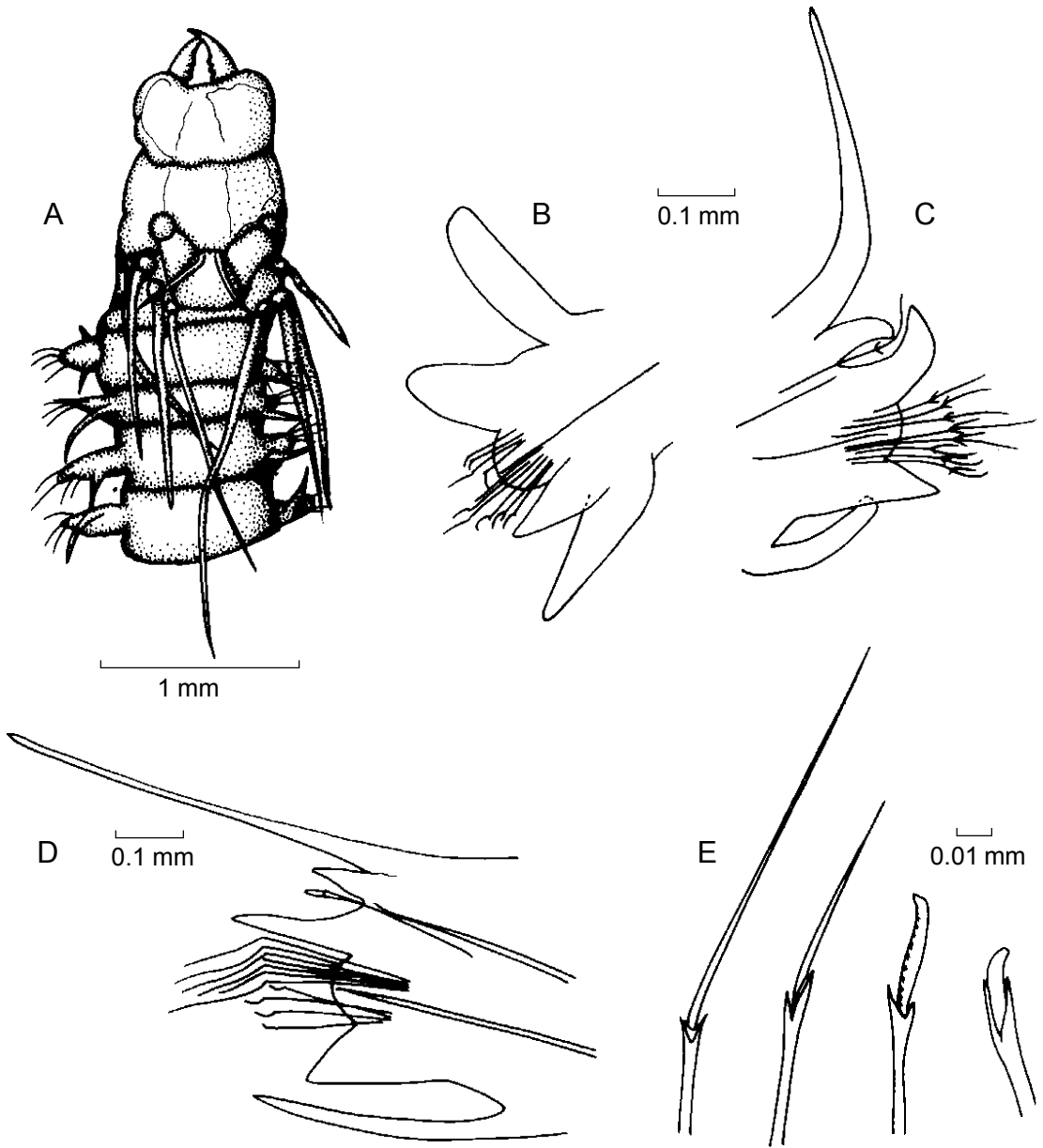


Fig. 7. *Rullierinereis faroensis* sp. nov. A. Anterior end, dorsal view. B. Parapodium from setiger 1, anterior view. C. Parapodium from middle of body, anterior view. D. Parapodium from posterior part of body, anterior view. E. Setae from posterior parapodium; from left: ventral homogomph spiniger, ventral heterogomph spiniger, ventral heterogomph falciger, dorsal homogomph falciger.

The pharynx is provided with papillae. The species *W. glauca* has no presetal notopodial lobes, which are present and distinct in the other known species of this genus.

W. glauca is a Lusitanian species, and is mostly distributed in warm water in the Atlantic and the Mediter-

anean. Around the Faroes most records were obtained from the warm area southwest of the islands (Fig. 8). The temperatures at the bottom here are from 6 to 9 °C. It was also recorded from several stations northwest of the Faroes, where the bottom temperatures are from 2 to 4 °C and, quite remarkably, also at some stations east of

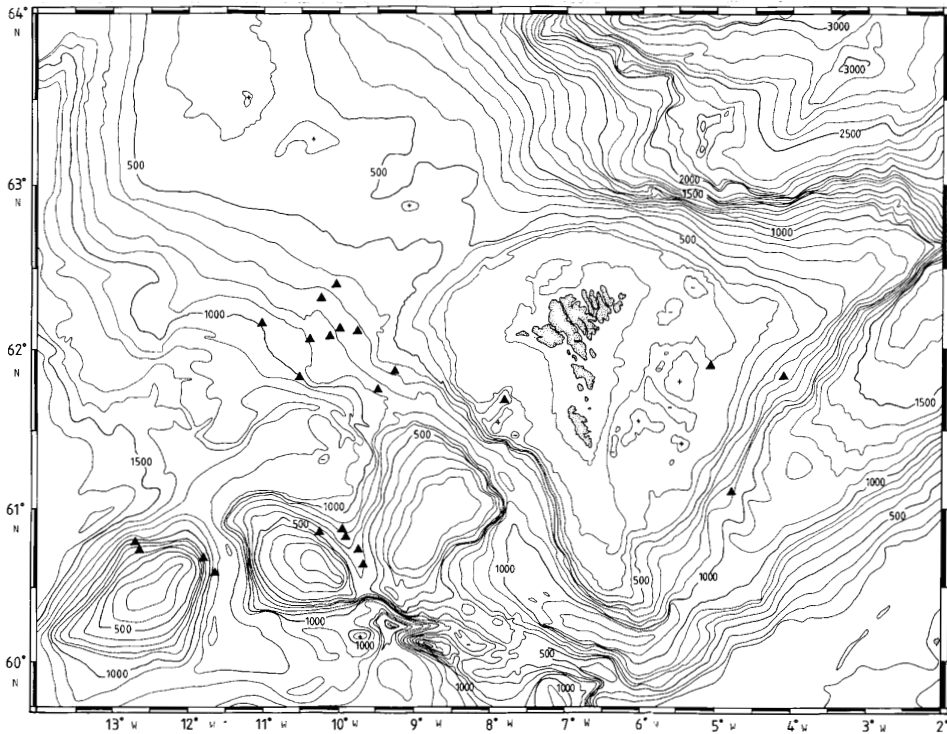


Fig. 8. *Websterinereis glauca* (CLAPARÈDE, 1870). Distribution in the Faroes, 225-1022 m.

the Faroes, in the Arctic water with temperatures down to -0.6°C . The present material includes 43 specimens from 23 stations, 225-1022 m. This is the first records of this species from the Faroes. The species has not been recorded from Iceland, but WESENBERG-LUND (1950) reported it in the 'Ingolf' material from West Greenland, in deep water from 600 to 2258 m. The temperatures here were $2.4\text{-}3.9^{\circ}\text{C}$. I have checked the material and it is correctly identified. It thus seems that the species can also live at low temperatures.

Distribution. Atlantic from West Greenland and the Faroes, western Europe and West Africa to Angola. Indian Ocean, south of Sri Lanka. 5-3310 m.

CONCLUSIONS

Of the species treated herein, *Glycera lapidum* is distributed all over the investigated area and can endure both high and low temperatures (Fig. 2). Three other species, *Goniada maculata*, *Nereis zonata* and *Nereis pelagica*, appear to prefer the shelf area around the islands, with depths between 300 m and the littoral (Figs 3, 5, 6); temperatures are between 6 and 8°C , although *N. pelagica* and *G. maculata* also were found at lower temperatures on the slope and on the shelf. *Glycera*

lapidum and *N. zonata* are mostly distributed in the Northeast Atlantic, while *N. pelagica* and *Goniada maculata* have a world-wide distribution. Two species, *Glycera capitata* and *Goniada norvegica*, are distributed in the deeper and colder area around the shelf (Figs 1, 4). Both species were recorded from 250 to around 1000 m in the Arctic water with temperatures below zero. *Glycera capitata* is known from both the Arctic and the Antarctic and from deep water in both the Atlantic and the Pacific, down to 3500 m. *Goniada norvegica* is only known from the North Atlantic down to 1000 m. *Websterinereis glauca* is a typical Lusitanian species found in shallow water from England to the Mediterranean, but also from shallow water along the west coast of Africa. It is the first record from the Faroes and is mostly distributed in the warmer water, west and southwest of the islands (Fig. 8).

There are 6 species new to the Faroes of which 2, *Glycera tessellata* and *Eunereis elitoralisis*, were only recorded from the bathyal zone (400-2000 m). The remaining four species, *Glycera lapidum*, *Glycinde nordmanni*, *Goniadella bobretzkii* and *Websterinereis glauca*, were also recorded from the littoral and sublittoral zones. There is also a new species, *Rullierinereis faroensis* sp. nov. from 100 m depth. Three species, *Nereis pelagica*, *N. zonata* and *Glycera capitata*, which earlier had been re-

corded from the littoral zone at the islands, have now also been recorded from the bathyal zone. The two closely related species *Eunereis longissima* and *E. litoralis* differ in their depth distribution. *E. longissima* is a shallow-water species, while *E. litoralis* is only known from the bathyal zone.

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